

LOCAL SEEDS - LOCAL FOOD

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LOCAL SEEDS - LOCAL FOOD

- **No seeds - no food**
- **Two approaches in seed production**
- **Seed diversity**
- **Pros and cons of local seeds**



NO SEEDS - NO FOOD?

- **Seeds are the starting point of food production (crops, livestock)**
- **Without seeds there would be no agriculture**



THE PLANT IN ITS ECOSYSTEMIC CONTEXT

Sunlight (energy)

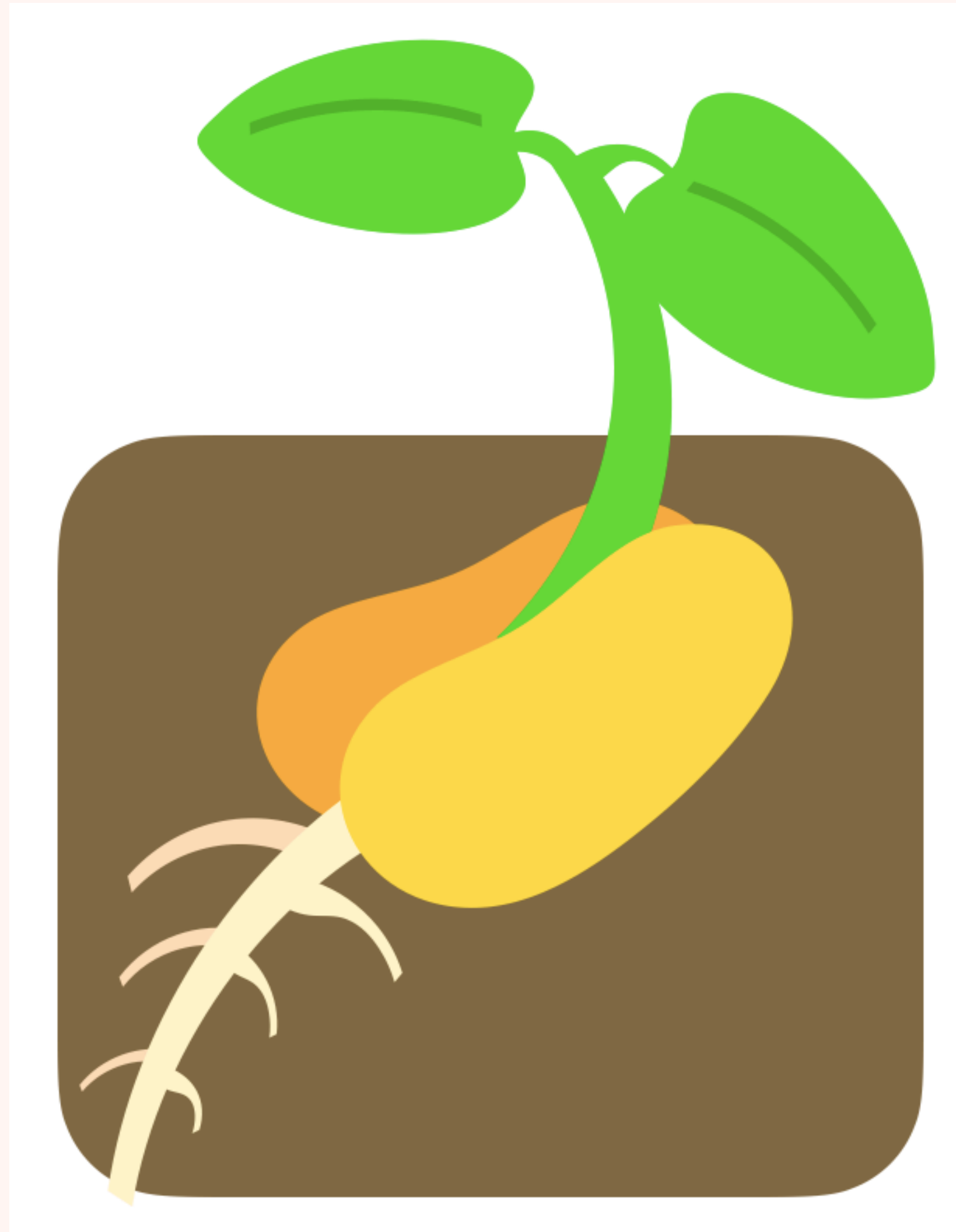
Pests

Diseases

Humus

Weeds

Soil life



Water

O₂ / CO₂

Climate

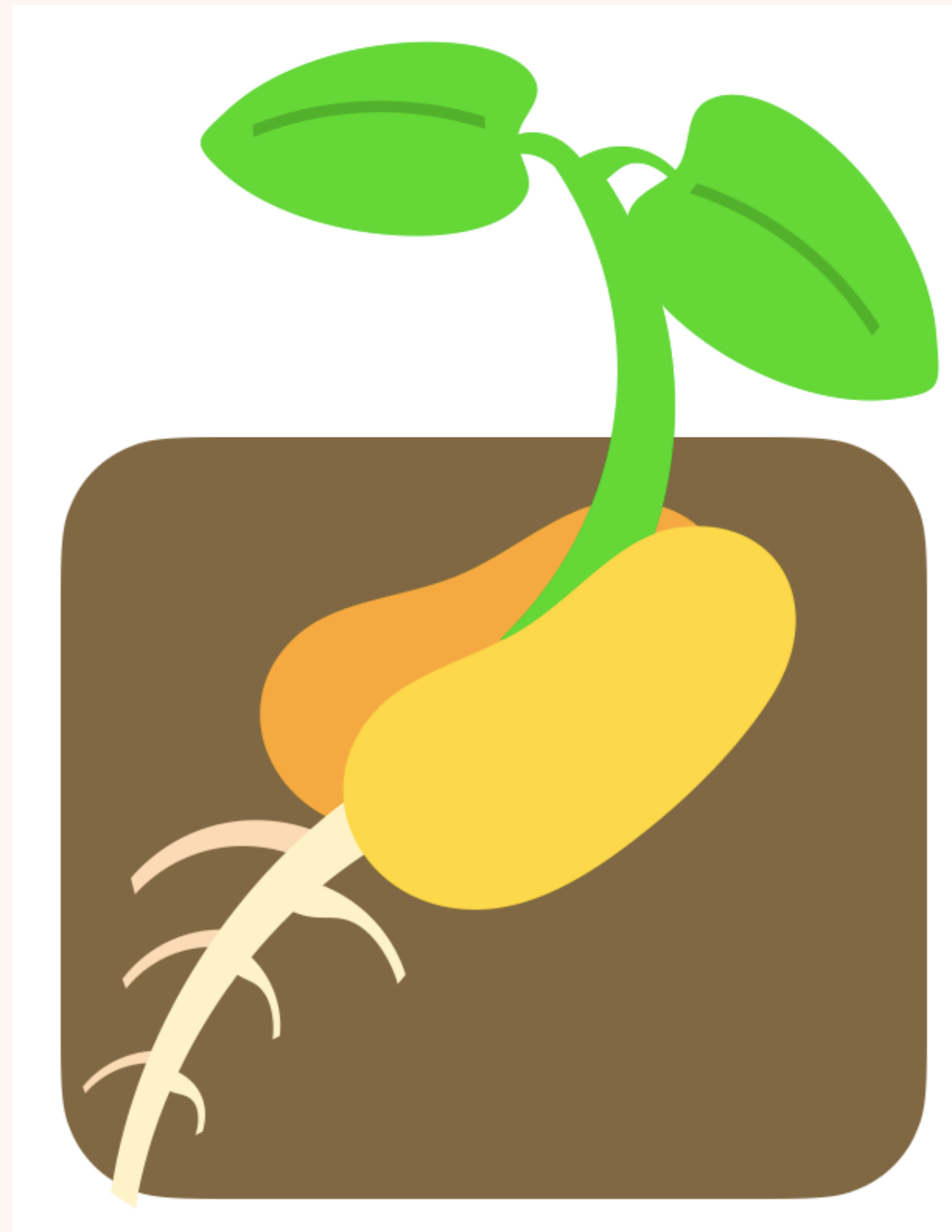
Nutrients

Soil quality

Cultural practices

TWO APPROACHES IN CROP PRODUCTION

Option 1:
Protect crops
against pests with
pesticides to
ensure good yields



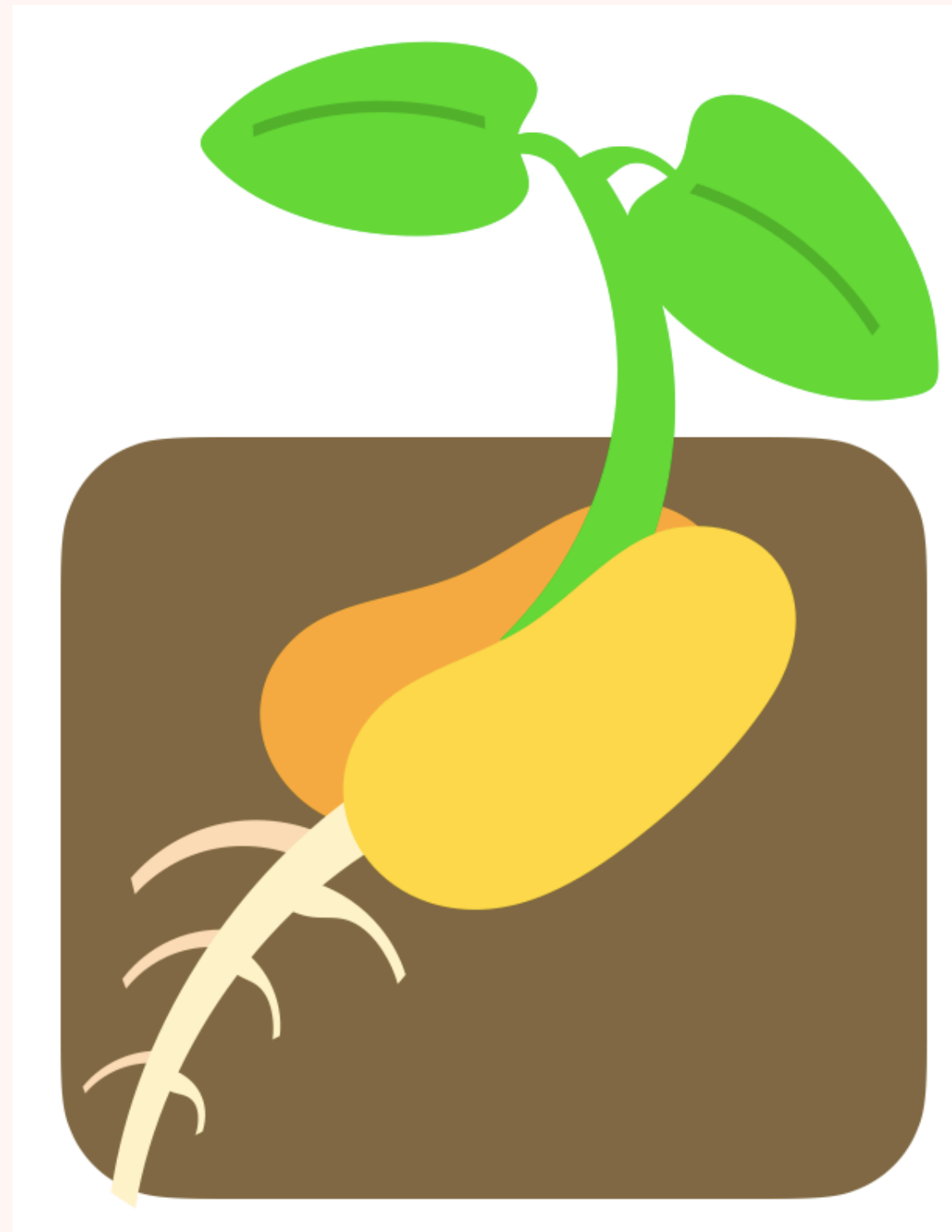
Option 2:
Boost the crops'
immune system
and let them
defend themselves

TWO APPROACHES IN SEED PRODUCTION

Option 1:

Use industrial seeds that are

- **Standardised**
- **Centralised**
- **Technologised +**
- **Privatised**

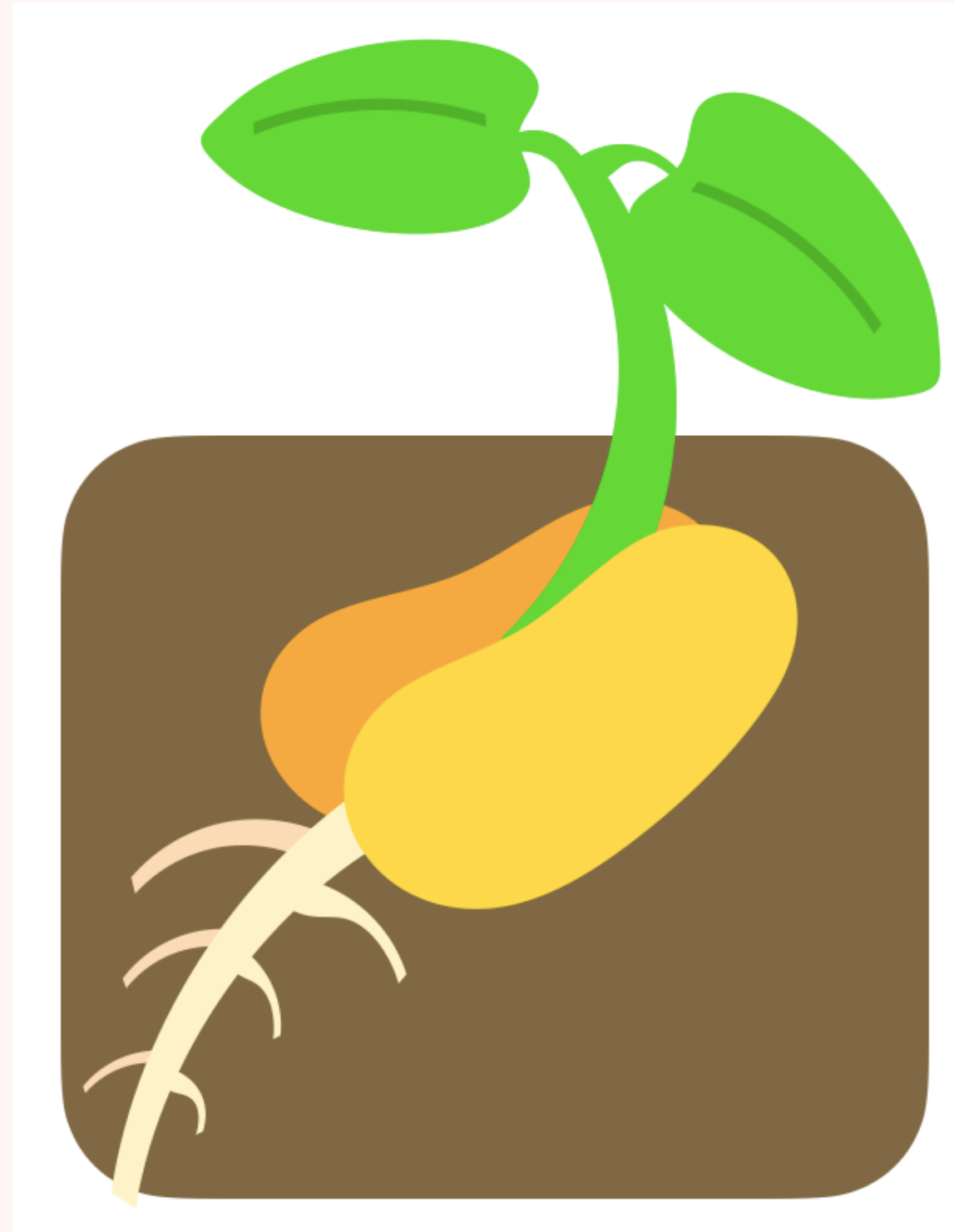


Option 2:

Use regional seeds by maintaining and developing traditional varieties as a common good

ISSUES OF THE INDUSTRIAL APPROACH

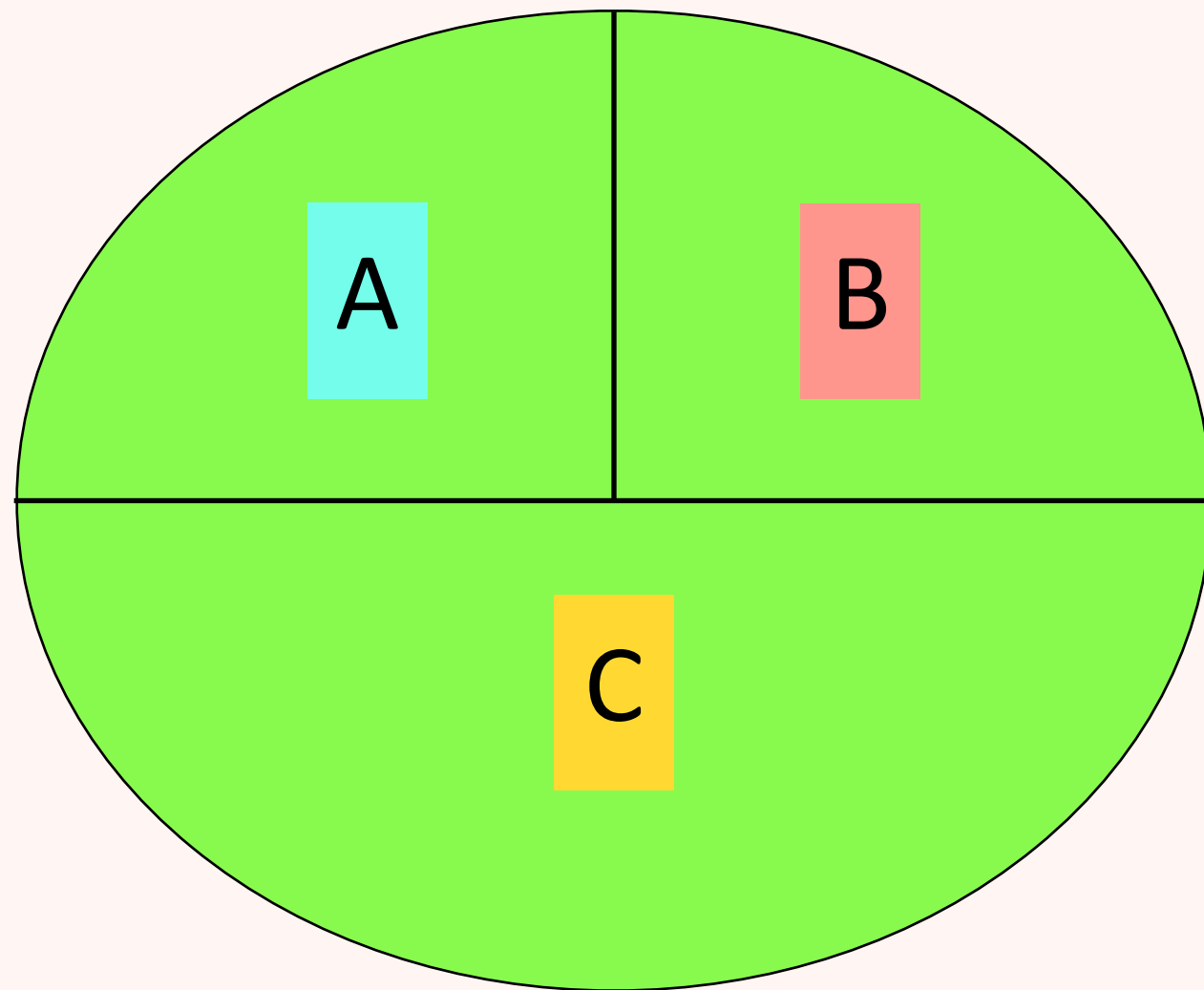
Pesticides disturb ecosystems, diminish biodiversity, pollute natural resources and cause health problems for human beings.



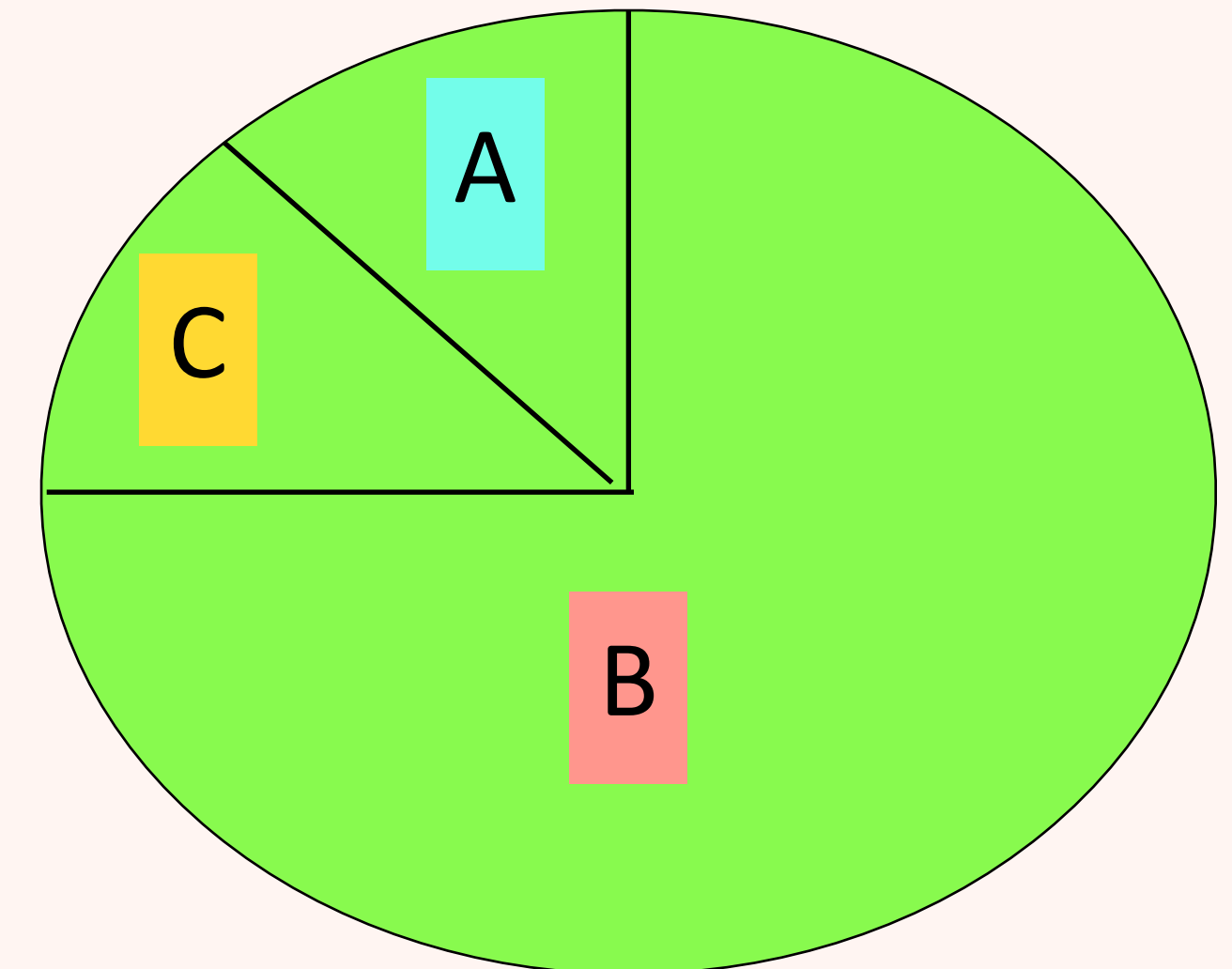
Industrial seeds are standardised and lack diversity. Farmers cannot reproduce them and become dependent on the seed industry.

THE PESTICIDE EFFECT: *THE MORE YOU FIGHT THEM, THE STRONGER THEY RETURN*

Agroecosystem before pesticide use



Agroecosystem after pesticide use



A Beneficial Insects

B Harmful insects

C Neutral insects

THE DIVERSITY APPROACH

Vertical Diversity:
On-farm development of
varieties through time

2030

2029

2028

2027

2026

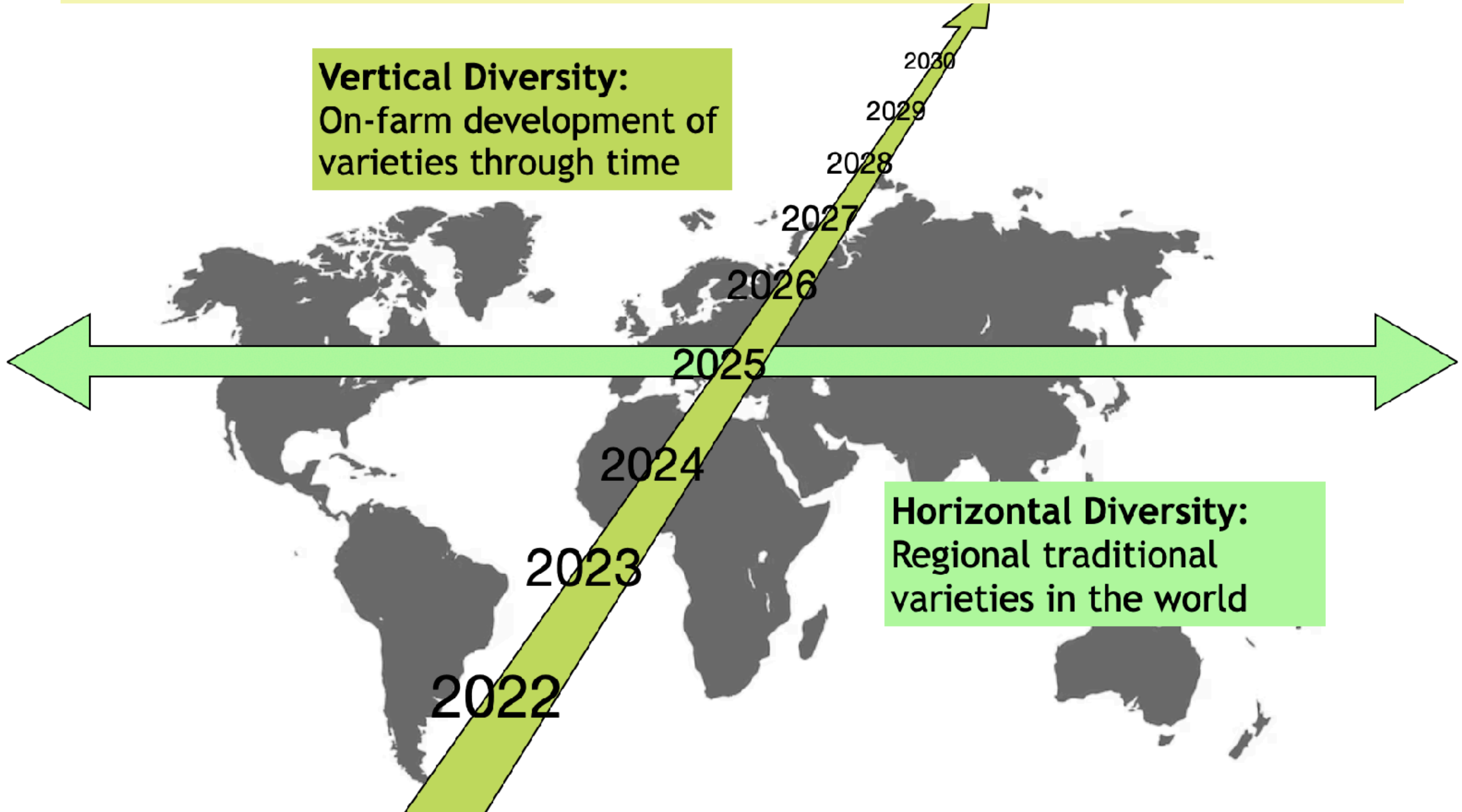
2025

2024

2023

2022

Horizontal Diversity:
Regional traditional
varieties in the world



MAINTAINING DIVERSITY

Save old varieties, ensure local diversity

HOBBY GARDENERS

Store and preserve plant genetic resources

SEED BANKS

Select new varieties, ensure global distribution

SEED INDUSTRY

SEED DIVERSITY

Multiply traditional varieties, preserve know-how

SEED ARTISANS

Develop regional varieties, ensure food sovereignty

SMALLHOLDERS IN THE SOUTH

ORGANIC BREEDERS

Save old varieties, ensure local diversity

Initial reflection:

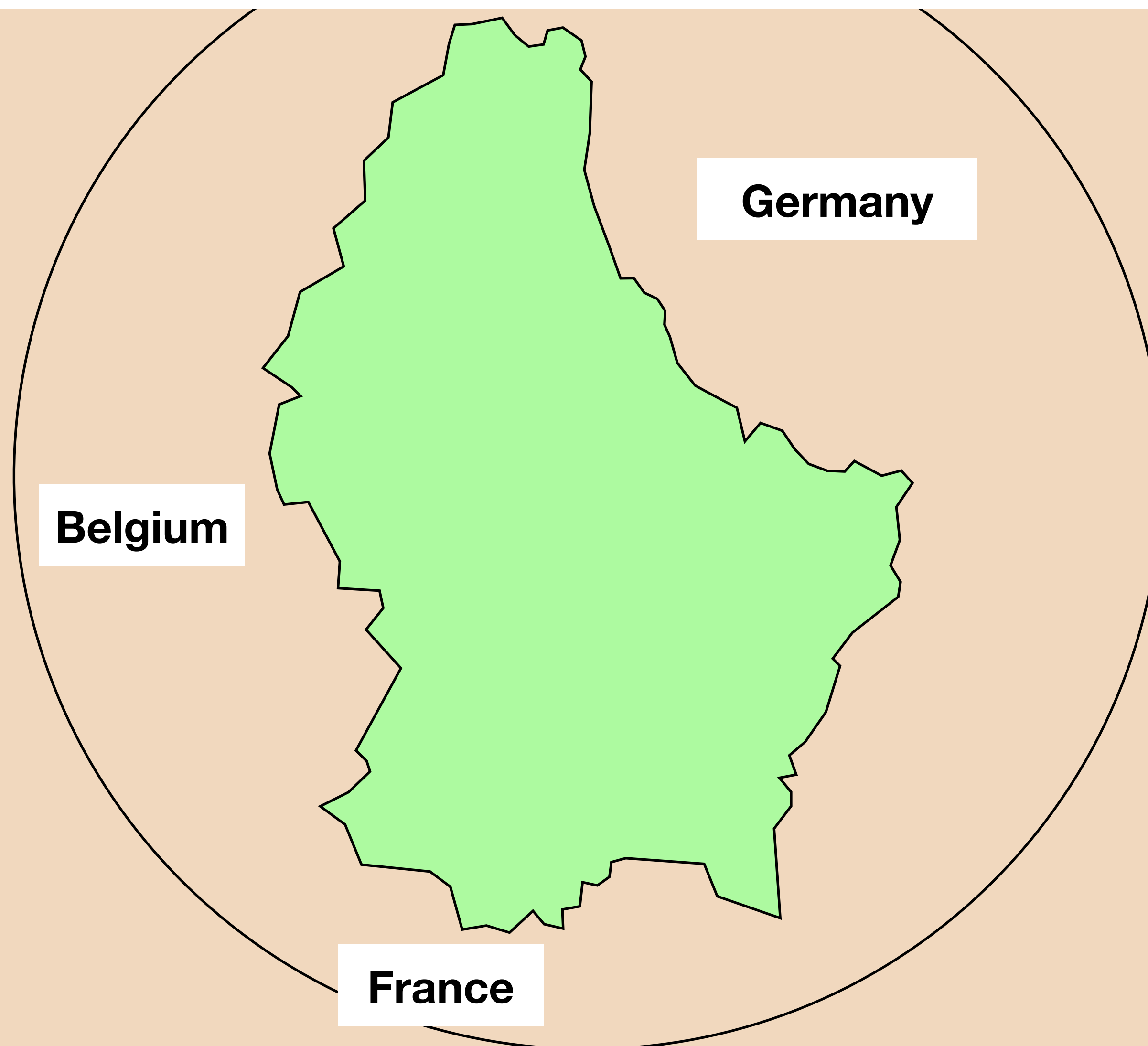
A majority in politics and civil society thinks that local food production should be increased.

Local seed production would make it possible to create 100% local products.

Local vegetable seed production has a number of benefits and advantages:

- Contribution to the diversity of food plants
- Local, ecological food production in circular economy
- Creation of local jobs
- Increase in regional food self-sufficiency

The project "From Seed To Plate"



Calculation:

How big is a region? A circle 100 km in diameter?

That would correspond to an area of 7.850 km². Luxembourg has an area of 2.586 km².

How many market gardeners could there be in Luxembourg?

At present, about 5% of the vegetables consumed in Luxembourg are locally produced.

There is more than enough room for more local vegetable and seed production.

Citizen seed network

In 2020, the Luxembourg associations CELL and SEED launched the project of a citizen seed network in the community gardens.

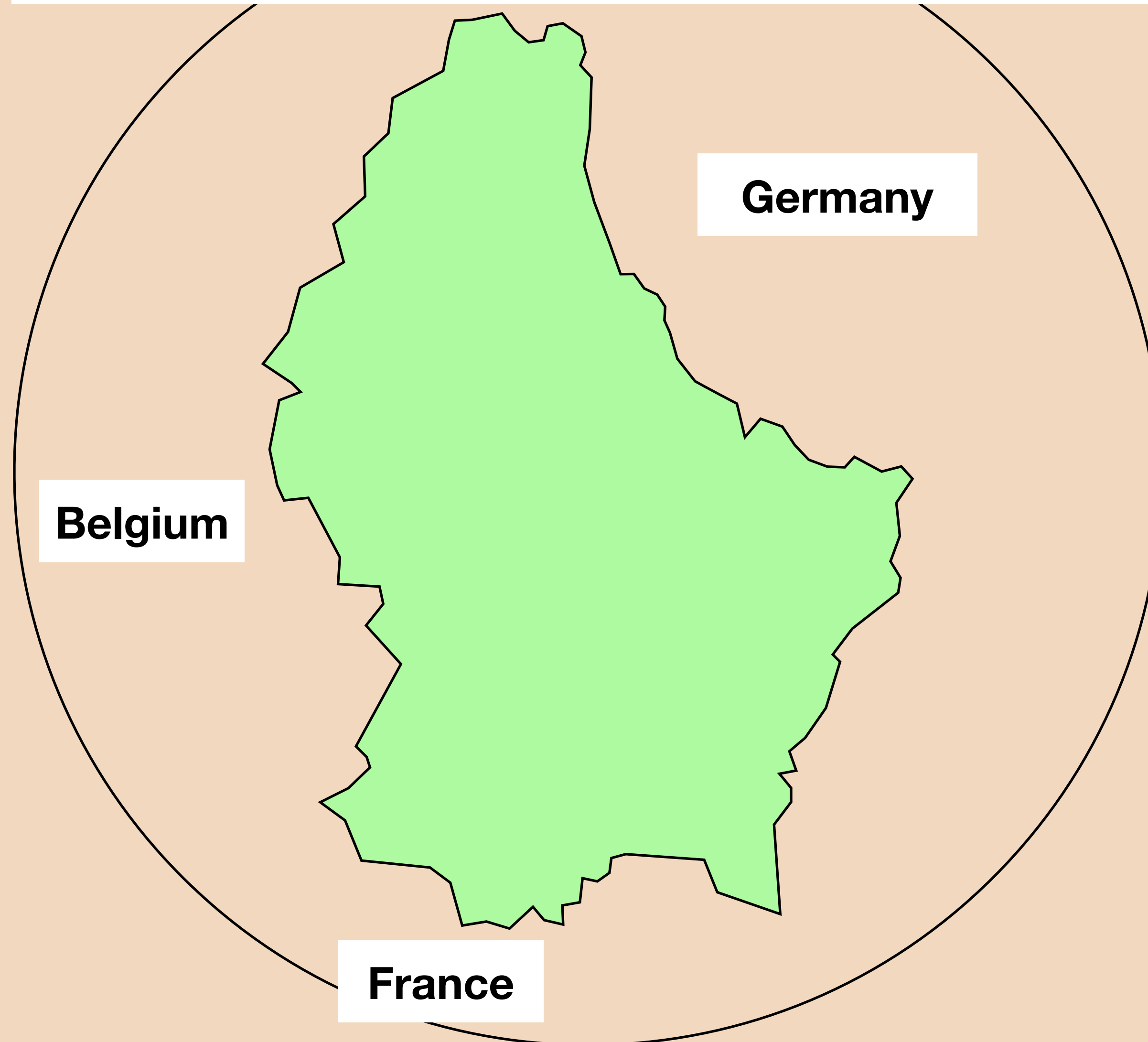
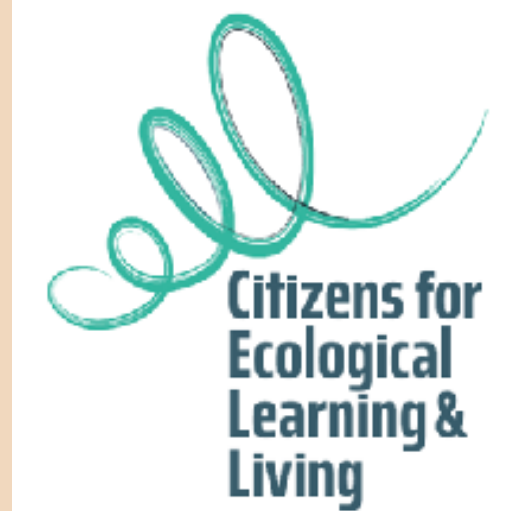
The objectives are:

- Contribute to maintaining seed diversity
- Contribute to measures to enable cultivated plants to adapt to climate change
- Contribute to local, ecological and solidarity-based food production
- Create opportunities for people of all ages, nationalities and social backgrounds to share and exchange seeds and ideas.

The project "Citizen Seed Network"



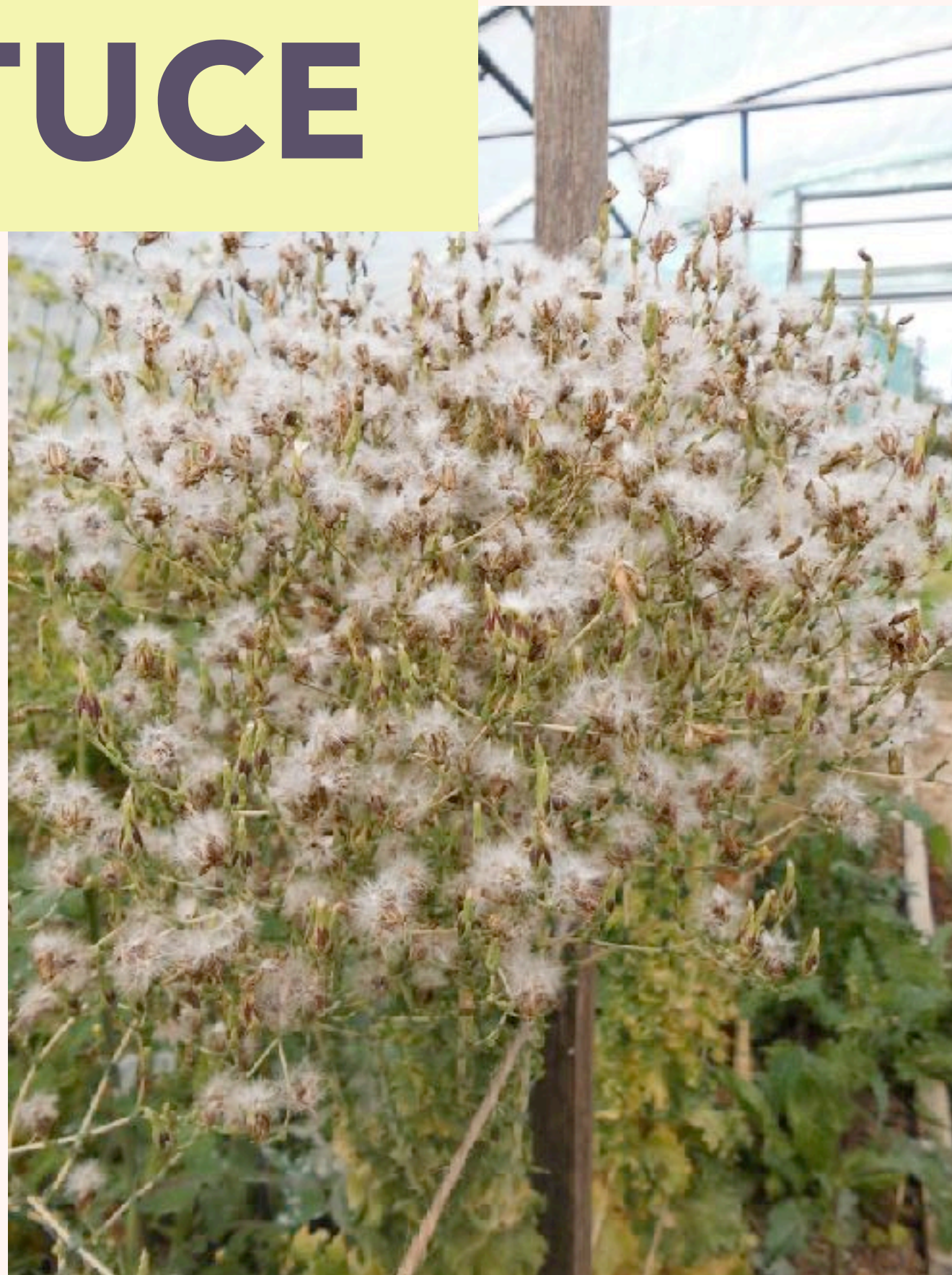
LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de l'Environnement, du Climat
et de la Biodiversité



TOMATO



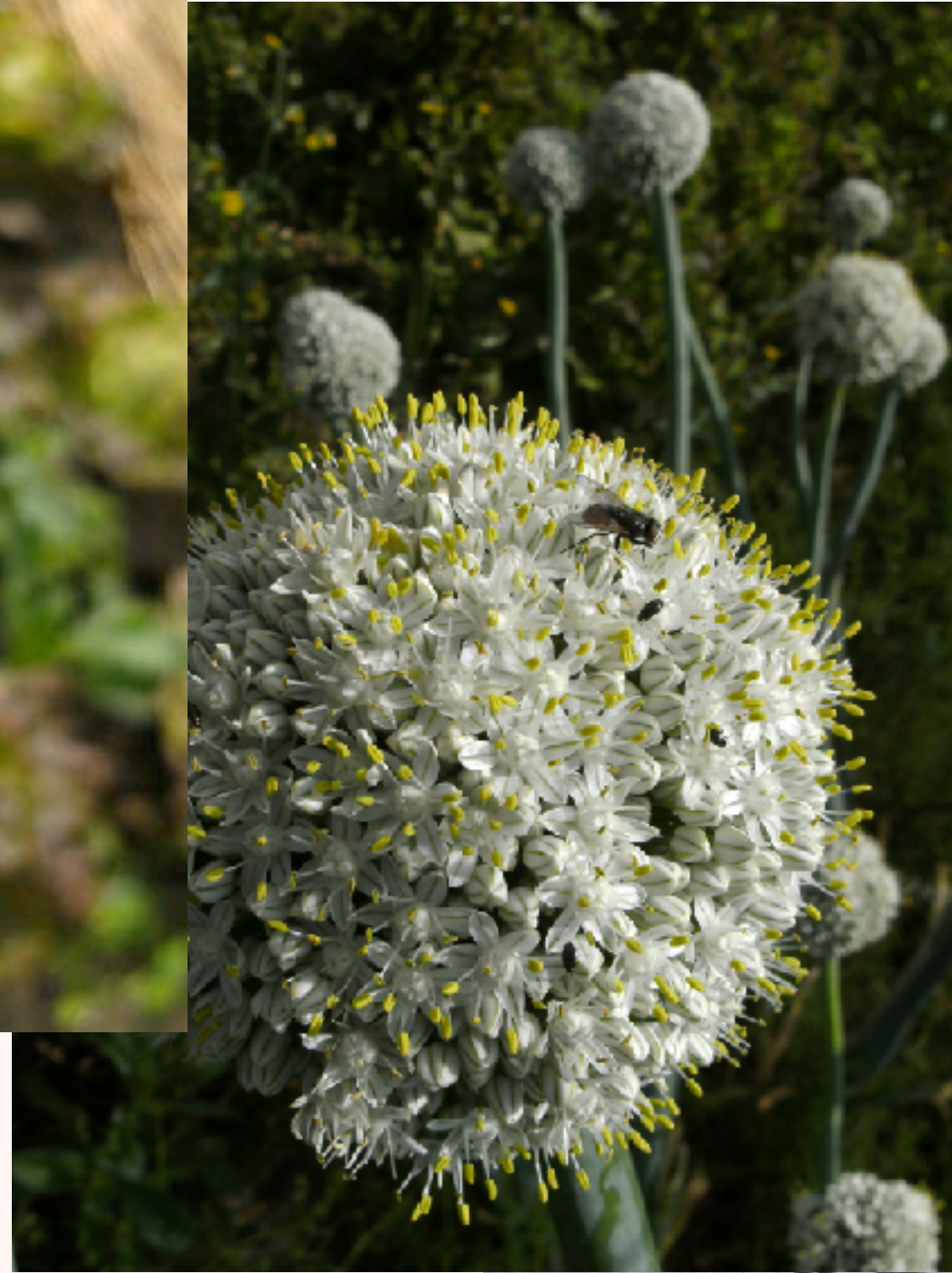
LETTUCE



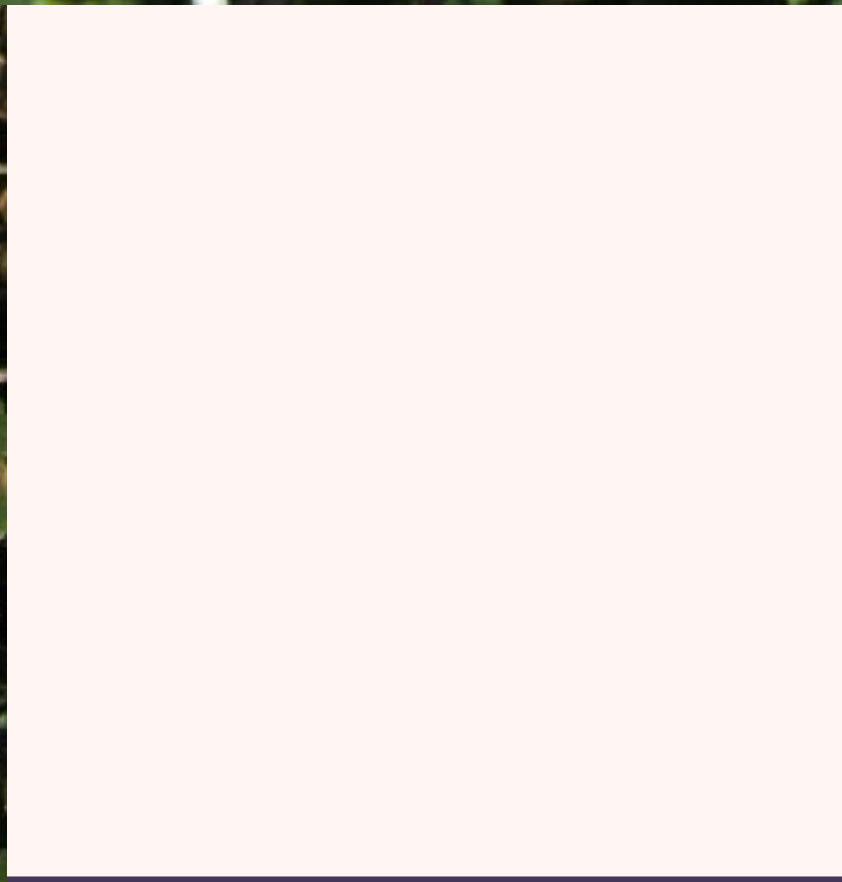
SPINACH



ONION



LEEK



WHITE CABBAGE



CARROT



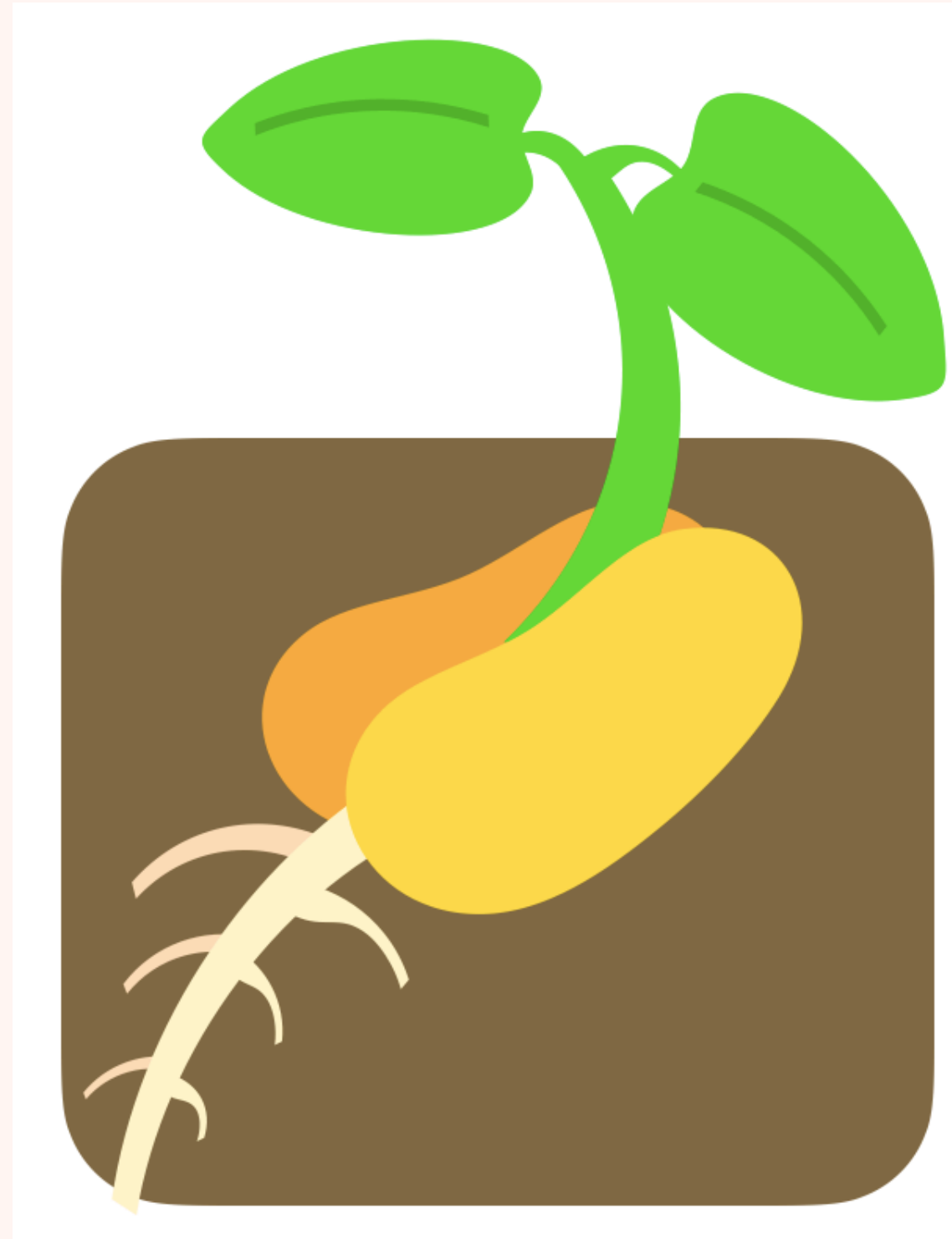
PUMPKIN



LOCAL SEEDS - OVERVIEW

Reasons for local seeds:

- Diversity of varieties
- Food security
- Regional seed autonomy
- Regional food autonomy
- Reduction of pesticides
- Reduction of greenhouse gases
- Circular economy
- Local jobs



Reasons against local seeds:

- Unfavourable climate
- Manual work
- Expensive machines
- Low viability
- Unfavourable laws
- Lack of Know-how
- Lack of producers
- Low political will

FUTURE PERSPECTIVES?